What is claimed is:

Claim 1. A mass flow controller, which has a flow rate control valve and a flow rate sensor, characterized by comprising a pressure control valve disposed at the upstream side of the flow rate control valve, a pressure sensor disposed between this pressure control valve and the flow rate control valve, and a controller for controlling the pressure control valve by feeding back the output of this pressure sensor.

Claim 2. The mass flow controller according to claim 1, wherein the pressure sensor faces to the passage immediately before the flow rate sensor.